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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,633	07/15/2004	Colin Steele	14603-008US1	4888
26161	7590	10/03/2005	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			AURORA, REENA	
			ART UNIT	PAPER NUMBER
			2862	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/501,633	Applicant(s) STEELE ET AL.	
	Examiner Reena Aurora	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/15/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/15/04, 12/8/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: It is improper to mention claim numbers in the specification.

Applicant is suggested to remove claim number on page 2, line 3 of the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Theus et al. (5,844,427).

As to claim 1, Theus et al. (hereinafter Theus) discloses a monolithic integrated sensor including a sensor (130, fig. 1A) to detect at least one of a magnetic field and an electrical field (col. 1, lines 18 - 21), the sensor comprising outputs (u7) that output sensor signals when a field is detected; a signal modulator (330) that receives sensor signals (u7) that correspond to the sensor signals, the signal modulator (330) having first (t1) and second (t2) control states, wherein in the first control state, the signal modulator outputs the sense signals (col. 4, lines 13 - 22), and, wherein in the second

control state, the signal modulator outputs inverted sense signals; and a device (230) that receives and processes the sense signals or the inverted sense signals (fig. 1A).

As to claim 2 and 3, Theus discloses that the sensor includes a Hall sensor (130, col. 3, line 13).

As to claims 5 and 6, Theus discloses a control logic circuit (400) in communication with the signal modulator (130) (col. 3, lines 18 - 32).

As to claims 11, 4 and 7, Theus discloses a second sensor (110, fig. 1A) to detect at least one of a magnetic field and an electrical field (col. 1, lines 18 - 21), the second sensor (110) comprising second outputs (u1) that output second sensor signals when a field is detected; a second signal modulator (310) that receives second sense signals (u1) that correspond to the second sensor signals, the second signal modulator (310) having the first (t1) and second (t2) control states, wherein in the first control state, the second signal modulator outputs the second sense signals (col. 4, lines 13 - 22), and wherein in the second control state, the second signal modulator outputs inverted second sense signals; wherein the device (230) receives and processes the second sense signals or the second inverted sense signals (fig. 1A).

As to claims 12 and 8, Theus discloses plural sensors (130, 110, fig. 1A) to detect at least one of a magnetic field and electrical field (col. 1, lines 18 - 21), each of the plural sensors (130, 110) comprising outputs (u7, u1) that output sensor signals when a field is detected; plural signal modulators (330, 310) that receive sense signals that correspond to sensor signals from corresponding ones of the plural sensors (130, 110), each of the plural signal modulators (330, 310) having the first (t1) and second (t2)

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control states, wherein the first control state, each signal modulator outputs sensor signals, and wherein in the first control state, each signal modulator outputs inverted sense signals (col. 4, lines 13 - 22); wherein the device (230) receives and processes the sense signals or the inverted sense signals.

As to claims 9 and 10, Theus discloses plural sensors (130, 110, fig. 1A) to detect at least one of a magnetic field and electrical field (col. 1, lines 18 - 21), each of the plural sensors (130, 110) comprising outputs (u7, u1) that output sensor signals when a field is detected; plural signal modulators (330, 310) that receive sense signals that correspond to sensor signals from corresponding ones of the plural sensors (130, 110), each of the plural signal modulators (330, 310) having the first (t1) and second (t2) control states, wherein the first control state, each signal modulator outputs sensor signals, and wherein in the first control state, each signal modulator outputs inverted sense signals (col. 4, lines 13 - 22); wherein the device (230) receives and processes the sense signals or the inverted sense signals, the method comprising reading and storing a first system signal from the device in a case that the system is in a first configuration; changing a configuration of the system to a second configuration that is different from the first configuration; reading and storing a second system signal from the device when the system is in the second configuration; and performing an arithmetic operation using the first system signal and the second system signal (col. 7, lines 29 - 41).

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mehrgardt et al. (5,406,202) is cited for its disclosure of a offset compensated Hall sensor.

Hara et al. (6,861,839) is cited for its disclosure of a magnetic field sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Reena Aurora